

REMARKS

The Applicants thank the Examiner for the thorough consideration given the present application. Claims 1-20 are pending. Claims 1-4, 7-11, 12, 15, 16, and 19 are amended, and these claims do not add new matter. Claims 1, 7, 8, 9, 10, 12, and 16 are independent. The Examiner is respectfully requested to reconsider the rejections in view of the amendments and remarks set forth herein.

SPECIFICATION CHANGES

The specification is amended merely to correct three typographical errors.

REJECTIONS UNDER 35 U.S.C. §102(e) and 103(a)

Claims 1-19 stand rejected under 35 U.S.C. §102(e) as being unpatentable over Yanagihara et al. (U.S. 6,697,432 B2) in view of Cloutier (U.S. 5,966,387); and claim 20 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Yanagihara et al. in view of Cloutier, and further in view of Markandey (U.S.2002/001989 A1). These rejections are respectfully traversed.

AMENDMENTS TO INDEPENDENT CLAIMS 1, 7, 8, 9, 10, 12, AND 16

While not conceding the appropriateness of the Examiner's rejection, but merely to advance the prosecution of the present invention, each of independent claims 1, 7, and 8 is amended to recite a combination of steps in a method for creating digital transport streams, including

creating the transport time reference for an arbitrary one of the transport stream packets

transmitted between two of the transport stream packets having program clock references by detecting the program clock reference value associated with each of two of the transport stream packets, and subtracting counter values from the detected program clock reference values, wherein the counter values are arrival times of the two transport stream packets.

In addition, each of independent claims 9 and 10 is amended to recite a combination of elements directed to an apparatus for recording digital transport streams, including

means for creating a transport time reference for an arbitrary one of said transport stream packets transmitted between two of the transport stream packets having program clock references by detecting the program clock reference value associated with each of two of the transport stream packets, and subtracting counter values from the detected program clock reference values, the counter values being arrival times of the two transport stream packets.

Further, each of independent claims 12 and 16 is amended to recite a combination of elements directed to an apparatus for recording digital transport streams, including

a subtracter for subtracting counter values from the detected program clock reference values associated with each of two of the transport stream packets, a first one preceding an arbitrary one of the transport stream packets and a second one following an arbitrary one of the transport stream packets, the counter values being arrival times of the two transport stream packets.

Support for the above novel features set forth in independent claims 1, 7, 8, 9, 10, 12, 13, and 16 can be found in the specification, for example, on page 10, line 2-30.

By contrast, Cloutier column 12, lines 27-54 merely discloses least square error calculator 162, and a jitter calculator 168 which determines a desired actual arrival time (Y_n') according to the equation $Y_n' = mX_n + b$, representing the ideal location of the arrival time of line 164 with respect to the received PCR value. The jitter J is then calculated as the difference $J = Y_n' - Y_n$, with Y_n being the actual arrival time.

Nowhere in either of Cloutier or Yanagihara et al. is there any suggestion of a subtracter for subtracting counter values from the detected program clock reference values associated with each of two of the transport stream packets, a first one preceding an arbitrary one of the transport stream packets and a second one following an arbitrary one of the transport stream packets, the counter values being arrival times of the two transport stream packets, as presently claimed.

Thus, at least for the reasons described above, the Applicants respectfully submit that the combination of method steps or elements as set forth in each of independent claims 1, 7, 8, 9, 10, 12, and 16 is not disclosed or made obvious by the cited references, including Yanagihara et al. and Cloutier.

While cited to reject dependent claim 20, Markandey cannot make up for the deficiencies of Yanagihara et al. and Cloutier.

Therefore, claims 1, 7, 8, 9, 10, 12, and 16 are in condition for allowance.

AMENDMENTS TO DEPENDENT CLAIMS 4, 15, AND 19

Claims 4 is amended to recite creating the transport time reference for an arbitrary one of the transport stream packets received between the two transport stream packets having

program clock references by compensating the arrival time of the arbitrary one of the transport stream packets by an amount corresponding to a linear proportion of the arrival time difference between the arbitrary one of the transport stream packets and a first one of said two transport stream packets to the arrival time difference of said two transport stream packets.

Similarly, claims 15 and 16 are amended to recite said transport time generator creates the transport time reference for the arbitrary one of the transport stream packets received between two of the transport stream packets having the program clock references by compensating the arrival time of the arbitrary transport stream packet by an amount corresponding to a linear proportion of the arrival time difference between the arbitrary transport stream packet and a first transport stream packet of said two transport stream packets to the arrival time difference of said two transport stream packets.

Support for the features of dependent claims 4, 15, and 19 can be found on page 11 of the specification. By contrast, the least squares error calculator scheme of Cloutier (column 12, lines 27-54) fails to suggest the method and apparatus, as set forth in claims 4, 15, and 19.

Further, the Examiner will note that claims 2 and 3 are amended to set forth additional novel features of the present invention. See page 10 of the specification for support.

The Applicants respectfully submit that dependent claims 2-6, 13-15, and 17-20 are in condition for allowance due to their dependency from allowable independent claims, or due to the additional novel limitations set forth therein.

Therefore, all claims of the present application are in condition for allowance, and reconsideration and withdrawal of the rejections under 35 U.S.C. §103(a) are respectfully requested.

CONCLUSION

Since the remaining patents cited by the Examiner have not been utilized to reject claims, but merely to show the state of the art, no comment need be made with respect thereto.

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. It is believed that a full and complete response has been made to the outstanding Office Action, and that the present application is in condition for allowance.

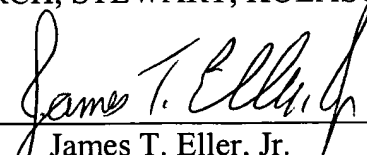
If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, he is invited to telephone Carl T. Thomsen (Reg. No. 50,786) at (703) 205-8000.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§1.16 or 1.17, particularly extension of time fees.

Respectfully submitted,

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By


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